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EXAMINER
HWANG, JOON H

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2166	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/714,557	STAHL ET AL.
	Examiner	Art Unit	
	Joon H. Hwang	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2007*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   The applicants requested for reconsideration in the amendment filed on 10/12/07.

The claims 1-22 are pending.

Response to Arguments

2.   Applicant's arguments filed on 10/12/07 have been fully considered but they are

not persuasive.

       A. The applicants argue that Griffin and Yoda failed to disclose "storing

representations, for at least one entry in the source table, of the action type and of the

unique key in a log table under *a condition that the action type coincides with a*

predetermined action type."

       The examiner respectfully traverses.

       The AdminDB 20 in Griffin is not limited to receiving only update transactions.

Griffin teaches the AdminDB 20 may also receive read transactions (lines 17-23 in col.

6). Therefore, possible actions types taught by Griffin are add, delete, update, and read.

The deltas include add, delete, and update actions (lines 24-36 in col. 11) among such

. possible actions types. Thus, the condition for storing the deltas would be the action

type coincides with add, delete, or update action type. Therefore, such limitation is

taught by Griffin.

       Griffin teaches the transaction and the underlying view definition are analyzed to

produce a delta, wherein the transaction is an update, insert, or delete transaction (lines

64-11 in cols. 3-4 and lines 66-5 in cols. 6-7). Thus, when a transaction is performed,

action type is already known. Therefore, the applicants' argument, the action types "+",

"-", and "mod" do not exist until the deltas are generated, is not persuasive.

It is a well settled rule that a reference must be considered not only for what it

expressly teaches, but also for what it fairly suggests. See *In re Burckel,* 592 F.2d

1175, 201 USPQ 67 (CCPA 1979) and *In re Lamberti,* 545 F.2d 747, 192 USPQ 278

(CCPA 1976) as well as *In re Bode,* 550 F.2d 656, 193 USPQ (CCPA 1977) which

indicates such fair suggestions to unpreferred embodiments must be considered even if

they were not illustrated. Additionally, it is an equally well settled rule that what a

reference can be said to fairly suggest relates to the concepts fairly contained therein,

and is not limited by the specific structure chosen to illustrate such concepts. See *In re*

Bascom, 230 F.2d 612, 109 USPQ 98 (CCPA 1956).

For the sake of the applicants' argument, it is assumed that Griffin does not

explicitly disclose "storing representations, for at least one entry in the source table, of

the action type and of the unique key in a log table under a condition that the action type

coincides with a predetermined action type".

However, Yoda teaches storing representations (i.e., journaling, lines 44-46 in col.

3), for at least one entry in the source table (i.e., a document in the document storage

section 22 in fig. 1, fig. 3, and lines 21-27 in col. 10), of the action type and of the unique

key (i.e., TYPE and DOCUMENT ID, lines 12-19 in col. 12, wherein TYPE and

DOCUMENT ID are identified from a document operation) in a log table (i.e., a journal,

fig. 5 and lines 53-59 in col. 10) under a condition that the action type coincides with a

predetermined action type (i.e., a specified operation type, for example, " * " for all

operation types, lines 1-6 in col. 18) in order to monitor specific data operations. Therefore, based on Griffin in view of Yoda, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Yoda to the system of Griffin in order to monitor specific data operations.

"Test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, **test is what combined teachings of references would have suggested to those of ordinary skill in art**." In re Keller, Terry, and Davies, 208 USPQ 871 (CCPA 1981).

"Reason, suggestion, or **motivation to combine two or more prior art references** in single invention **may come from references themselves**, from **knowledge of those skilled in art** that certain references or disclosures in references are known to be of interest in particular field, or from **nature of problem to be solved**;" Pro-Mold and Tool Co. v. Great Lakes Plastics Inc. U.S. Court of Appeals Federal Circuit 37 USPQ2d 1626 Decided February 7, 1996 Nos. 95-1171, -1181.

"Prima facie case of obviousness is established when **teachings of prior art appear to suggest claimed subject matter to person of ordinary skill in art**; it is incumbent upon applicant to go forward with objective evidence of unobviousness once prima facie case is established." In re Rinehart (CCPA) 189 USPQ 143 Decided Mar. 11, 1976 No. 75-608 U.S. Court of Customs and Patent Appeals.

Therefore, the applicants' arguments are not persuasive.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 5-10, and 14-22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Griffin et al. (U.S. Patent No. 6,006,216) in view of Yoda et al. (U.S.

Patent No. 6,119,117).

With respect to claim 1, Griffin teaches migrating content from a source table in a

source database to a target table in a target database, wherein the databases are

physically different (i.e., migrating content from AdminDB to ReadDB, wherein AdminDB

utilizes normalized schema and ReadDB utilizes unnormalized schema, and AdminDB

and ReadDB reside on different platforms, fig. 2, lines 32-45 in col. 6, and lines 22-39 in

col. 7). Griffin teaches storing entries corresponding to database instructions in at least

one of the source table and the target table, with a business application consecutively

sending database instructions to the source database before migrating, the business

application consecutively sending database instructions to the target database after

migrating, each entry in each table having a unique key, and the database instructions

having action types (line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in

col. 7, fig. 2, fig. 10, and fig. 14). Griffin teaches storing representations, for at least one

entry in the source table, of the action type and of the unique key in a log table under

the condition that the action type coincides with a predetermined action type (i.e.,

generation of delta, line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col.

7, fig. 2, fig. 10, and fig. 14; wherein the deltas my be any of various different forms as

in the prior art, lines 63-64 in col. 6, which teaches the deltas can be in form of a table

as well known in the art (i.e., information is structured in tables), line 52 in col. 3; the

deltas teach a log of changes, line 64 in col. 3 thru line 11 in col. 4 and lines 1-3 in col.

7; an action type in the delta (i.e., "+" for add, "-" for delete, and "mod" for update), lines

24-36 in col. 11; a unique key in the delta (i.e., tuples including ID key, such as item 103

in fig. 10), lines 24-36 in col. 11 and fig. 14; the deltas include update transactions, such

as add, delete, and update, lines 24-36 in col. 11, thus the condition would be every

update transactions). Griffin teaches copying entries of the source table to the target

table (line 64 in col. 3 thru line 11 in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig.

10, and fig. 14). Griffin teaches adjusting the entries in the target table that have keys

represented in the log table according to the action type representation stored in the log

table (i.e., entries in ReadDB table are copied and adjusted, line 64 in col. 3 thru line 11

in col. 4, line 7 in col. 6 thru line 8 in col. 7, fig. 2, fig. 10, and fig. 14). Yoda also

teaches storing representations of the action type and of the unique key in a log table

under the condition that the action type coincides with a predetermined action type (i.e.,

specifying an operation type to be targeted to selectively acquire the journal of

operations, lines 44-46 in col. 3, lines 12-19 in col. 12, and lines 1-6 in col. 18) in order

to monitor specific data operations. Therefore, based on Griffin in view of Yoda, it

would have been obvious to one having ordinary skill in the art at the time the invention

was made to utilize the teaching of Yoda to the system of Griffin in order to monitor

specific data operations.

With respect to claim 5, Griffin teaches adjusting the entries is performed in a first

adjustment period while the application is sending database instructions and in a

second adjustment period while the application is not sending database instructions

(line 52 in col. 6 thru line 8 in col. 7).

With respect to claim 6, Griffin teaches the predetermined action types are

selected from the group consisting of insert, delete, and update (line 52 in col. 6 thru

line 8 in col. 7).

With respect to claim 7, Griffin teaches the database instructions are SQL

statements (lines 11-25 in col. 10).

With respect to claim 8, Griffin teaches adjusting the entries comprises adjusting

a first portion of the source table with a first portion of the target table substantially in

parallel with adjusting a second portion of the source table with a second portion of the

target table (i.e., handling multiple transactions concurrently, lines 31-35 in col. 1 and

line 52 in col. 6 thru line 8 in col. 7).

With respect to claim 9, Griffin teaches copying entries comprises copying a first

portion of the source table to a first portion of the target table substantially in parallel

with copying a second portion of the source table to a second portion of the target table

(i.e., handling multiple transactions concurrently, lines 31-35 in col. 1 and line 52 in col.

6 thru line 8 in col. 7).

The limitations of claims 10, 19, and 22 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claims 14 and 20 are rejected in the analysis of claim 5 above, and these claims are rejected on that basis.

The limitations of claim 15 are rejected in the analysis of claim 6 above, and the claim is rejected on that basis.

The limitations of claim 16 are rejected in the analysis of claim 7 above, and the claim is rejected on that basis.

The limitations of claims 17 and 21 are rejected in the analysis of claim 8 above, and these claims are rejected on that basis.

The limitations of claim 18 are rejected in the analysis of claim 9 above, and the claim is rejected on that basis.

5.   Claims 2-4 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin et al. (U.S. Patent No. 6,006,216) in view of Yoda et al. (U.S. Patent No. 6,119,117), and further in view of Nowlin, Jr. et al. (U.S. Patent No. 6,484,309).

With respect to claims 2-4, Griffin and Yoda disclose the claimed subject matter as discussed above except converting the coding of the entry. However, Nowlin teaches converting the coding of data from ASCII-code to Unicode (lines 19-33 in col. 3 and lines 42-51 in col. 4) in order to transfer the data to a system that uses only Unicode strings which are 16 bits per character. Therefore, based on Griffin in view of Yoda, and further in view of Nowlin, it would have been obvious to one having ordinary

skill in the art at the time the invention was made to utilize the teaching of Nowlin to the

system of Griffin in order to transfer the data to a system that uses only Unicode strings

which are 16 bits per character.

The limitations of claims 11-13 are rejected in the analysis of claims 2-4 above,

and these claims are rejected on that basis.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joon H. Hwang whose telephone number is 571-272-

4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joon Hwang
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12/21/2007